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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,669	03/09/2004	Jin-Town Wang	P/741-179	3274

2352 7590 09/15/2006

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EXAMINER

PATTERSON, CHARLES L JR

ART UNIT PAPER NUMBER

1652

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,669

Applicant(s)

WANG ET AL.

Examiner

Charles L. Patterson, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 6-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

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Claims 1 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is confusing and apparently incorrect in the recitation of "and which cleaves the DNA" on line 2. Apparently the enzyme does not cleave the same DNA that is the recognition site. The instant phrase should apparently be deleted.

Claim 13 is confusing in the recitation of "which cleaves DNA four and five bases downstream..., respectively, downstream of the particular DNA sequence...in the bottom strand, and" in lines 2-5. There is apparently essentially the same recitation twice in the claim, which is confusing. Apparently the recitation "downstream of the particular DNA sequence...in the bottom strand, and" should be deleted.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is repeated for the reasons given in the last action. Applicants arguments have been carefully considered but do not overcome the instant rejection.

As stated in the last action, the instant claims state that the restriction endonuclease "cleaves DNA four and five bases downstream from the

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particular nucleotide sequence in the top and bottom strand, respectively". Table 1 was objected to as it apparently shows this is true in the first, third, fifth, seventh and ninth lambda positions shown in the table, but not in the other lambda positions. In the fourth and sixth positions (4970-5009 and 9855-9894, respectively) it shows the DNA being cleaved five bases downstream from CCATC, not four. In the second position, eighth and tenth positions (1596-1635, 12404-12443 and 39588-39627, respectively) it shows the cleavage site as being 4 bases upstream from the inverse complement, which would correspond to four bases from CCATC on the other strand. In their explanation applicants have changed the arrow to read "junction site", not cleavage site as in Table 1 of the specification and have added or subtracted one position to indicate what is apparently intended to be the cleavage site. This is not shown in the specification and would be objected to as "new matter" if applicant attempted to enter this recitation. In this regard the second, third and fourth positions in the figure on page 9 of the amendment shows cleavage as being through a base (line through the letter), not to the left or right of the base.

The examiner cannot find any teaching in the specification regarding the recitations of the last paragraph on page 7 through the end of page 8 of the instant amendment and he does not understand it. Paragraph 34 of the specification as amended now states:

The enzyme recognizes a 5 base-pair asymmetric sequence, 5'CCATC-3' (SEQ ID NO:1), and cleaves DNA downstream of the recognition site, after nucleotide 4 and 5 in the upper and lower strand respectively. These strands are more conventionally referred to as the "top strand" and "bottom strand", respectively.

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The positions in Table 1 of the specification, discussed *supra*, do not show the cleavage pattern indicated in paragraph 34 and the explanation in the instant amendment is not understood. Furthermore, Table 1 clearly indicates that the arrow is the "cleavage site of the λ DNA", not that it is the "junction site". The examiner does not find the term "junction site" anywhere in the specification. Absent a very convincing and understandable explanation, the instant rejection is maintained.

Claims 2-4 and 6-12 are objected to as being dependent upon a rejected base claim.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose

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telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
September 11, 2006